

Work Order ID 133300

133300

Page 1

Monday, June 01, 2015 1:56:16 PM

Item ID: D4785-3

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Rib

Start Date: 6/01/15

Start Qty: 4.00

4
4 6X

Cust Item ID:

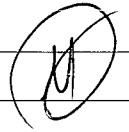
Required Date: 6/04/15

Req'd Qty: 4.00

Customer:

Reference:

Approvals:

Process Plan: 

Date: 5-6-1

Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D4785

B

100

0.00

100

Large Fab

Memo

0.00

Large Fab

1- Cut tube as per dwg D4785
2- remove identification marks and deburr

6X 15/6/2

110

QC6- Inspect dimensions to drawing

0.00

110

QC

Memo

0.00

Quality Control

6x DAS 43 9-89 JUN 03 2015

120

Identify as per dwg & Stock Location: _____

0.00

120

Packaging

Memo

0.00

Packaging

LOCATION: WA004

6x DAS 43 9-89 JUN 03 2015

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																						
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐																						
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																						
Large Fab ☐	Composite ☐	Supplier ☐																							
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																		
Description Work Order Deviation				Disposition			Completed By																		
							Lead hand / Supervisor Approval Verification																		
							QC / QA Coordinator Approval																		
Root Cause		FAULT CATEGORY																							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐																				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐																				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐																				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐																				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐																				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐																				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐																				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐																				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐																				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐																				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :																							
Misidentified ☐	Past Due ☐																								

Work Order ID 133300

133300

Page 2

Monday, June 01, 2015 1:56:16 PM

Item ID: D4785-3

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Rib

Start Date: 6/01/15 Start Qty: 4.00

4

Cust Item ID:

Required Date: 6/04/15 Req'd Qty: 4.00

4

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

130

QC21 - Final Inspection - Work Order Release

0.00

130

QC

Memo

0.00

Quality Control

MLJ JUN 03 2015

MLJ JUN 03 2015

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐	OTHER : _____							

Picklist Print

Tuesday, June 02, 2015 11:35:31 AM

Page 1

Work Order ID: 133300

133300

Parent Item: D4785-3

D4785-3

Parent Item Name: Rib

Start Date: 6/01/15

Required Date: 6/04/15

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP REV:A 13.03.14 NEW ISSUE VERF:JLM
13.06.21 DWG REV.B DD VERF:JFS

IPP REV:B

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

M304TS0.500W.049

Purchased

No

100

f

1,534.128

0.96

5

M304TS0 500W 049

Square Tubing

6X Dk 15/6/2

Location

Loc Qty

Loc Code

WA004

1534.128

M130173

901.128

M132210

633

8

DQA: _____ Date: _____



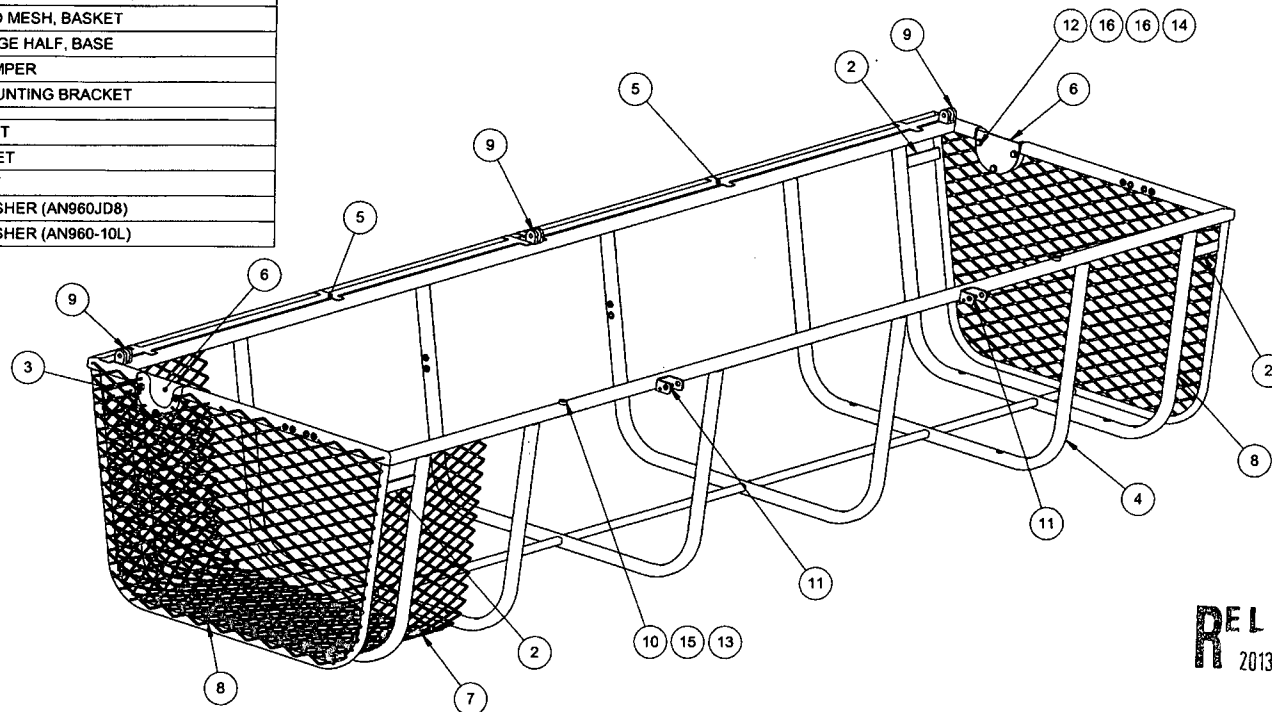
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐		Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐					
		OTHER : ☐							

ITEM NO.	QTY. -041	PART NUMBER	DESCRIPTION
1	X	D4785-041	LONG BASKET BASE ASSY, LH/RH
2	3	D4793-1	HANDLE PLATE
3	1	D4793-3	WIDE HANDLE PLATE
4	1	D4785-101	TUBULAR ASSEMBLY, LH/RH
5	2	D4672-1	BLANKING PLATE
6	2	D4021-5	BLANKING PLATE
7	1	D4020-1	MESH BASKET LONG, BASE
8	2	D4020-11	END MESH, BASKET
9	3	D4016-1	HINGE HALF, BASE
10	2	D2931	BUMPER
11	2	D2581	MOUNTING BRACKET
12	6	AN3-10A	BOLT
13	2	MS20600AD4W3	RIVET
14	6	MS21042L3	NUT
15	2	NAS1149DN832J	WASHER (AN960JD8)
16	12	NAS1149F0332P	WASHER (AN960-10L)



RELEASED
2013-06-20

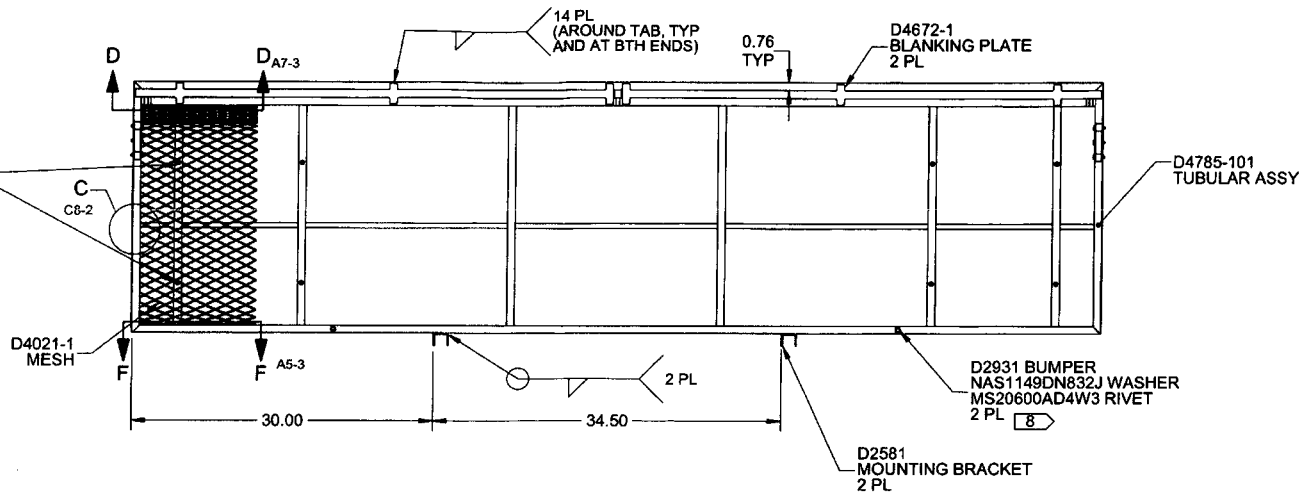
D4785-041 LONG BASKET BASE ASSY, LH/RH

NOTES:

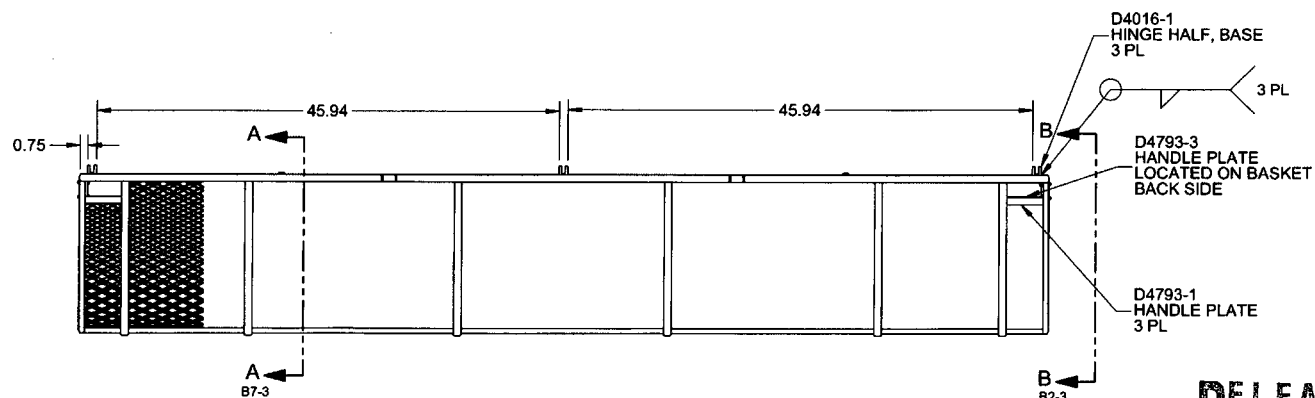
- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT WHITE (4.3.5.2) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 50.42 lbs APPROX
- 8) INSTALL AFTER FINISH
- 9) MASK HOLES PRIOR TO POWDER COAT
- 10) WELD PER DART QSI 004

B	REPLACE D3916-5 WITH D4785-117 (ZN B5-4, B4-4, B5-7); REVISE D4785-5 DIMENSION (ZN B5-5)	RF	13.06.11
A	NEW ISSUE	RF	13.05.24
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF	DRAWING NO.	REV. B
CHECKED	RF	D4785	SHEET 1 OF 7
MFG. APPR.	RF	TITLE	SCALE
APPROVED	RF	LONG BASKET BASE ASSY	NTS
DE APPR.	RF	COPYRIGHT © 2013 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR DISCLOSED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	
DATE	13.06.11		

TRIM MESH LOCALLY
 $\phi 0.50 - \phi 0.60$
 TO CLEAR BUSHINGS
 TYP



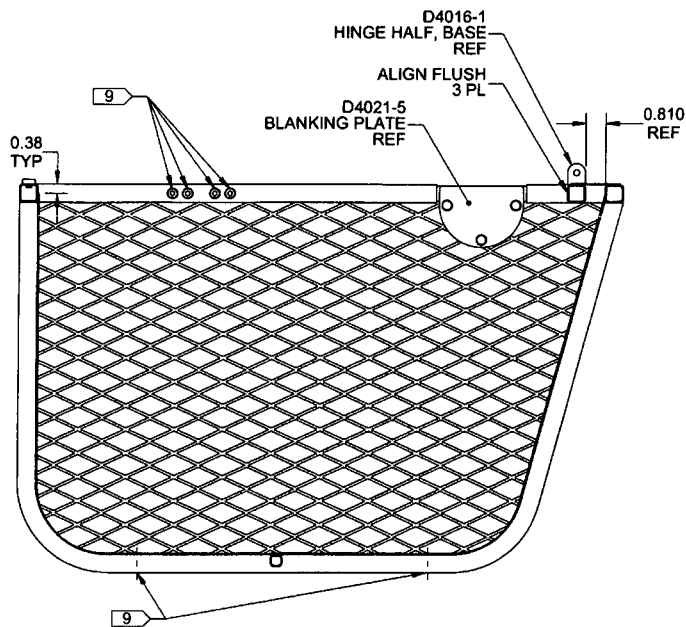
DETAIL C D7-2



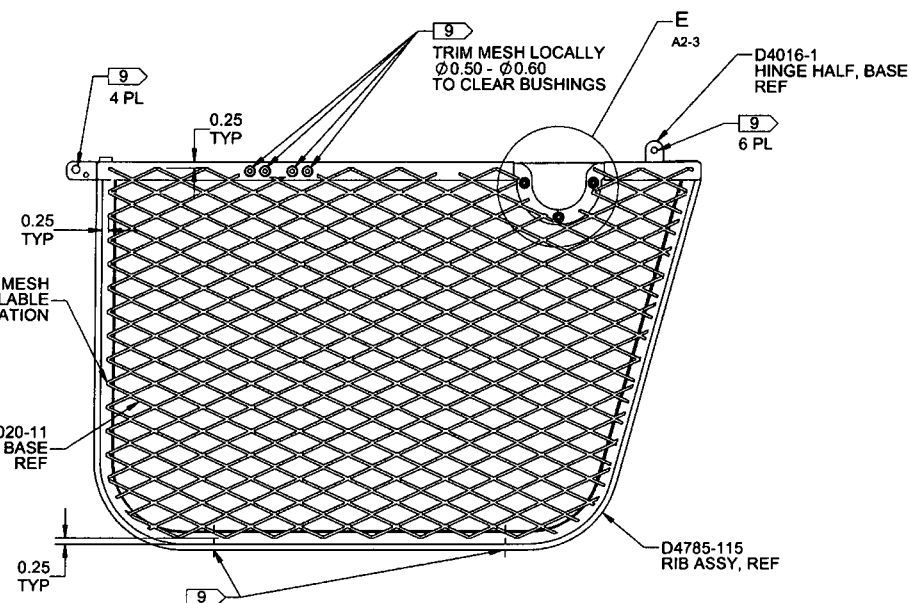
D4785-041 LONG BASKET BASE ASSY, LH/RH
 (MESH SHOWN LOCALLY FOR CLARITY)

RELEASED
 2013-06-20

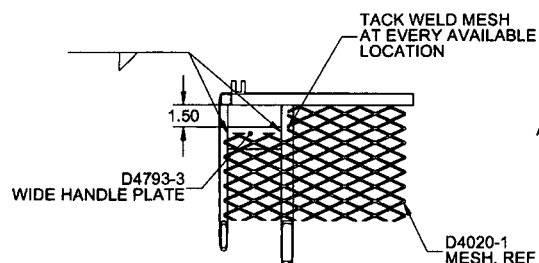
DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	PC	DRAWING NO.	REV. B
MFG. APPR.	DS	D4785	SHEET 2 OF 7
APPROVED	#	TITLE	SCALE
DE APPR.		LONG BASKET BASE ASSY	NTS
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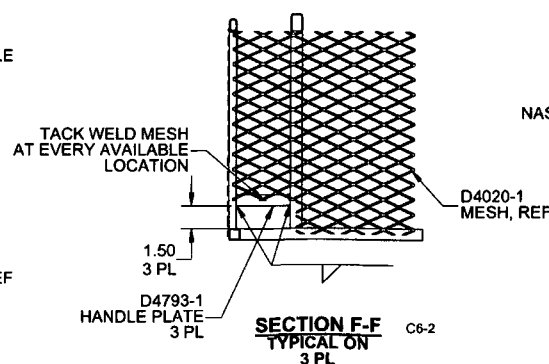
SECTION A-A B7-2



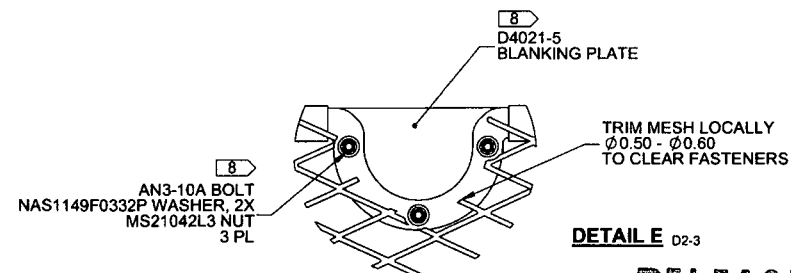
SECTION VIEW B-B A2-2



SECTION D-D D6-2



SECTION F-F C6-2
TYPICAL ON 3 PL

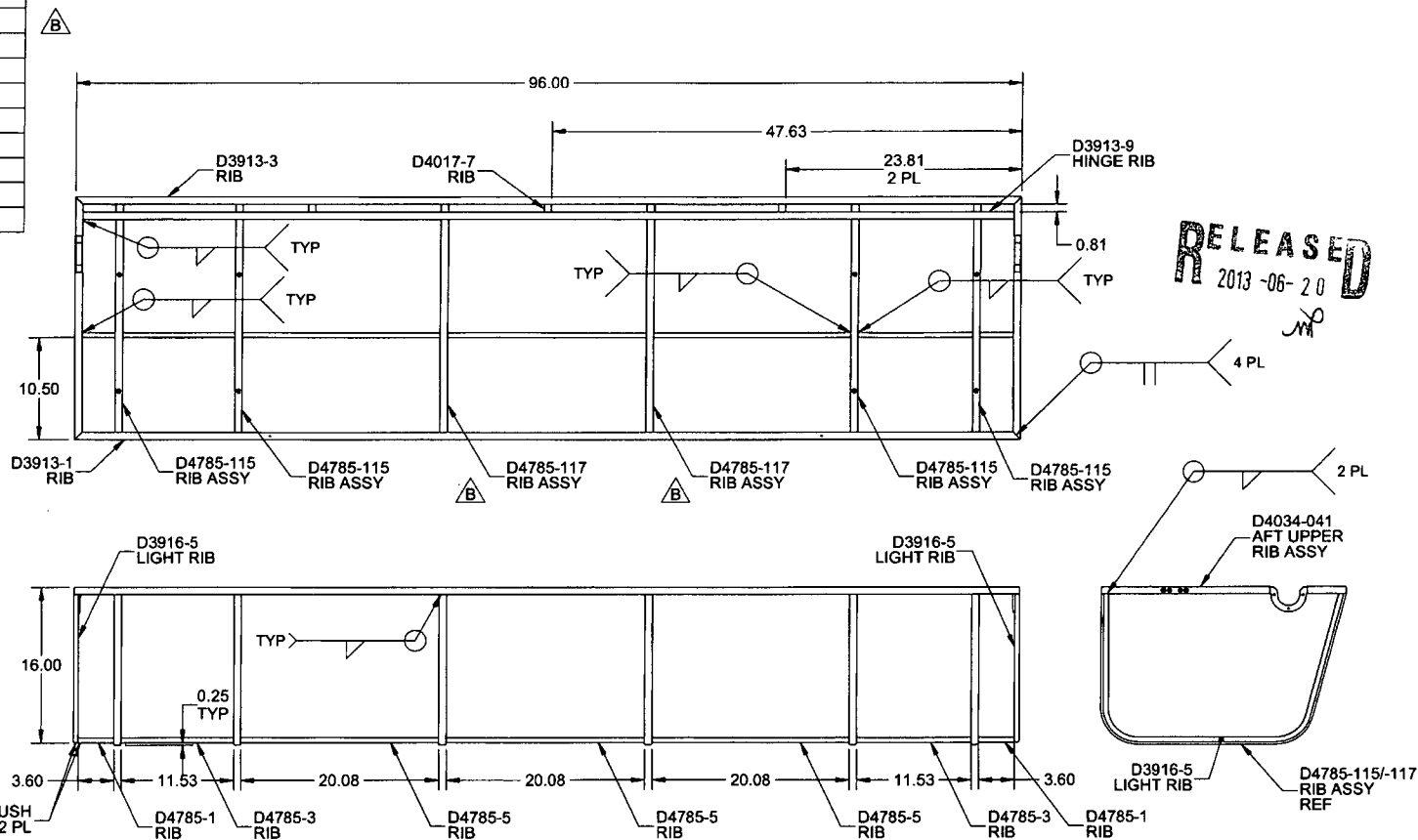


DETAIL E D2-3

RELEASED
2013-06-20

DESIGN	RF	70%	
DRAWN	RF	DART AEROSPACE LTD	
		HAWKESBURY, ONTARIO, CANADA	
CHECKED	DL	DRAWING NO.	REV. B
MFG. APPR.	DL	D4785	SHEET 3 OF 7
APPROVED	DL	TITLE	SCALE
DE APPR.	DL	LONG BASKET BASE ASSY	NTS
DATE	13.06.11	COPYRIGHT © 2013 BY DART AEROSPACE LTD	
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ITEM NO.	QTY. -101	PART NUMBER	DESCRIPTION
1	X	D4785-101	TUBULAR ASSEMBLY
2	2	D4785-1	RIB
3	3	D4785-5	RIB
4	4	D4785-115	RIB ASSEMBLY
5	2	D4785-117	RIB ASSEMBLY
6	2	D4785-3	RIB
7	3	D4017-7	RIB
8	1	D4034-041	AFT UPPER RIB ASSY
9	1	D4034-043	FWD UPPER RIB ASSY
10	2	D3916-5	RIB, LIGHT
11	1	D3913-1	RIB
12	1	D3913-3	RIB
13	1	D3913-9	HINGE RIB



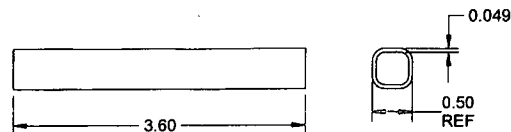
RELEASED
2013-06-20

NOTES:

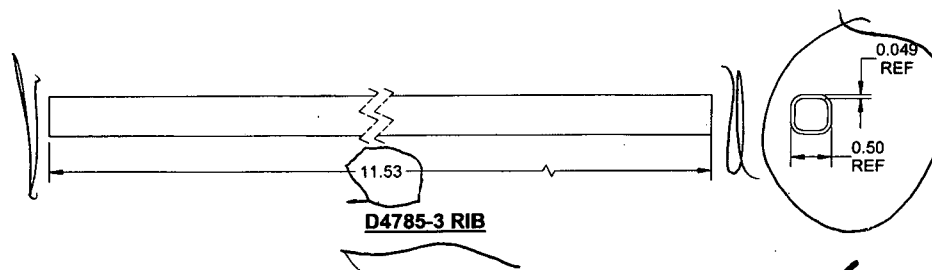
- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 28.65 lbs
- 8) WELD PER DART QSI 004

D4785-101 TUBULAR ASSEMBLY, LH/RH

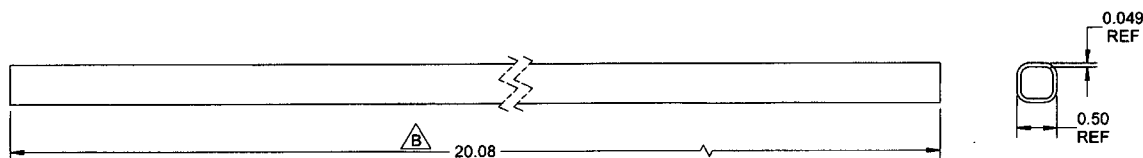
DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	DL	DRAWING NO.	REV. B
MFG. APPR.	DL	D4785	SHEET 4 OF 7
APPROVED	DL	TITLE	SCALE
DE APPR.	DL	LONG BASKET BASE ASSY	NTS
DATE	13.06.11	COPYRIGHT © 2013 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSES OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	



D4785-1 RIB



D4785-3 RIB



D4785-5 RIB

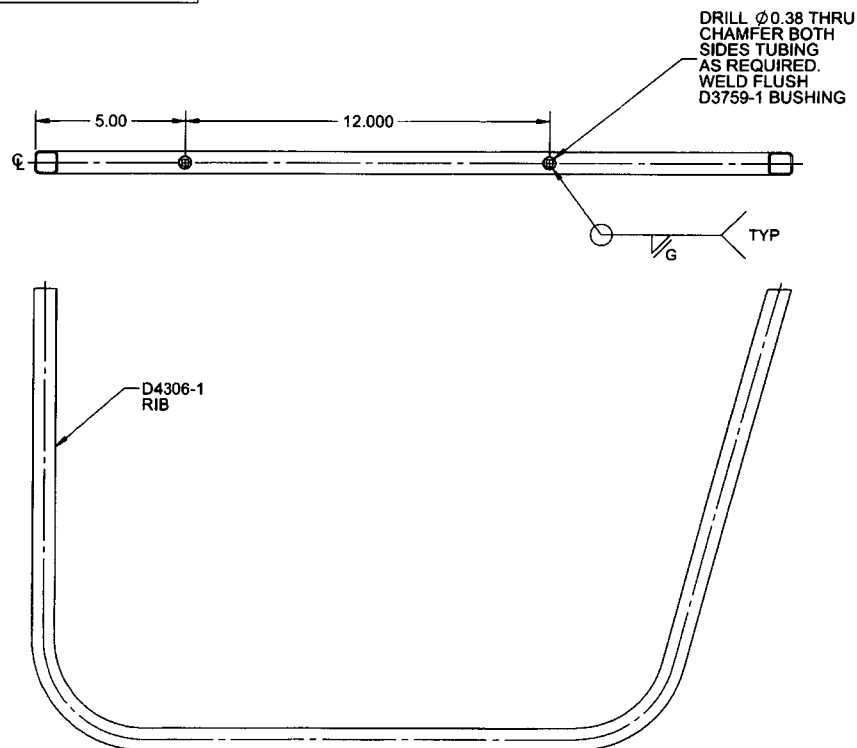
NOTES:

- 1) MATERIAL: AISI 304/316 SEAMLESS STAINLESS STEEL SQUARE TUBE, 0.50 x 0.50 x 0.049 WALL
PER ASTM A554 OR ASTM A269 MILL FINISH
REF DART SPEC. M304TS0.500W.049
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: SEE ASSEMBLED WEIGHTS

DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	BC	DRAWING NO.	REV. B
MFG. APPR.	JS	D4785	SHEET 5 OF 7
APPROVED	JS	TITLE	SCALE
DE APPR.	JS	LONG BASKET BASE ASSY	NTS
DATE	13.06.11	COPYRIGHT © 2013 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

RELEASED
2013-06-20
MTP

ITEM NO.	QTY. -115	PART NUMBER	DESCRIPTION
1	X	D4785-115	RIB ASSEMBLY
2	1	D4306-1	RIB
3	2	D3759-1	BUSHING



D4785-115 RIB ASSEMBLY
MAKE FROM D4306-1 RIB

NOTES:

- 1) MATERIAL: D4306-1 RIB
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 1.80 lbs
- 8) WELD PER DART QSI 004

RELEASED
2013-06-20
JND

DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	PC	DRAWING NO. D4785	REV. B
MFG. APPR.	PC	SHEET 6 OF 7	
APPROVED	PC	TITLE LONG BASKET BASE ASSY	SCALE NTS
DE APPR.	PC	COPYRIGHT © 2013 BY DART AEROSPACE LTD	
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